

Small Cell Tower Issues

Development of Small Cell Technology

Cellular communication towers 100 feet or taller are a familiar sight. They provide a place to mount antennas for two-way wireless telephone and data communication for Federal Communications Commission (FCC) licensed telecommunications carriers. More than ever, smartphone and other wireless devices send and receive streams of essential business and entertainment and social data and programs that put ever-increasing demands on networks.

Having worked on hundreds of applications for installation of communications towers, I can say that my clients were frequently asked if it was possible to provide the same service with smaller, or shorter, towers. Typically, the answer was an honest "no." Because of the many natural and manmade obstructions

to radio communication signals, tower height is essential to service. This is still true.

However, changing technology, particularly the miniaturization of some of equipment, has made possible shorter towers that take up less ground space. Some are only about 50 feet in height. This shorter tower still is limited by natural and manmade obstructions, and its service area is much smaller than a tower of typical height.

But, in areas of extremely high demand for video and other wireless communication services – such as in densely populated urban environments – the selective placement of shorter towers can enhance service. This innovation has also brought about some recent legal problems.

OPPORTUNITY V. EXPLOITATION

From the mid-1990s, municipalities began adopting special ordinances for cellular communication uses. Many of these were very detailed, requiring tower builders to meet essential safety standards and prove the need for the location they had chosen, the height of the proposed tower, and the services to be provided.

As a result, experienced municipal officials and their attorneys will be familiar with terms like "collocation" and "coverage map" and the requirements of the "EIA/TIA 222" tower structural design standards. In contrast, many municipalities have loose regulation of what goes into their rights of way.

Unfortunately, a few companies are now looking for ways

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to exploit the loose regulation of rights-of-way and avoid the appropriate regulation of cell towers by installing small towers in places where regular towers would not normally be permitted. They avoid rent - or underpay rent - and may not follow the strict standards applicable to full-sized cellular communications towers.

For instance, there are recent reports from Virginia of companies installing small, substandard wooden poles with cellular antennas in highway rights-ofway without seeking any permit, by claiming to be a public utility exempt from regulation, and avoiding payment of rent too. Others have installed equipment in rights-of-way where there was little municipal oversight, using slipshod construction that would be embarrassing to a reputable tower company. There have even been total failures of unregulated small, wooden cell towers: and one of these may have caused a serious fire.

Some companies claim to be providing a public utility service, flashing licenses as a "competitive local exchange carrier," when, in fact, the service being provided is not a public utility. Some have even registered company names that lead the casual observer to believe the company is a utility.

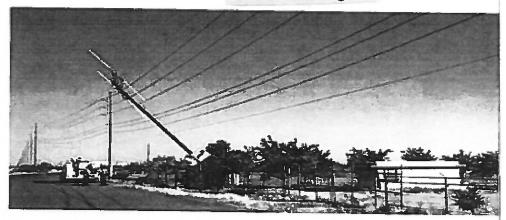
Problems sometimes created by these small cell towers should not be confused with distributed antenna systems that can be

discretely installed on existing municipal light poles, traffic standards, and similar structures that are the subject of a negotiated and publicly approved license agreement with the municipality. These license agreements usually address rent, structural integrity, and appropriate locations. Nor should they be confused with properly installed small towers

for, a small tower, the municipal official should ask the following questions of staff, legal counsel, and the applicant:

Does the current zoning ordinance or other ordinance apply to the small towers? If not, should an ordinance be amended?

If the municipality has an ordinance which regulates the



regulated under municipal ordinances. But that is the point.

Reputable tower companies, operating under reasonable regulation, are really "doing it right" and are justifiably frustrated by some outliers who are seeking to exploit present gaps in municipal regulation.

Cellular communications companies and the tower infrastructure companies that own and manage most of the thousands of steel cellular towers in the country have a virtually unblemished record of structural safety, due to compliance with construction codes and the integrity of their maintenance and management.

If confronted with inquiries about, or even an application

installation of structures in the public right-of-way, does it adequately regulate the placement and safety of small cell towers? Does it regulate location, tower structure, weight load, wind load, and similar subjects?

Is the proposed service genuinely a public utility, if the applicant claims it to be? And, even if the applicant has public utility status, is the structure going to provide the services for which the public utility status was issued?

If not a public utility use, then, should an independent small cell tower be placed in the right-ofway, along with other utility structures and municipal structures?

If a small tower is to be placed in the public right-of-way, will it continues on page 32...

obstruct other necessary activities or uses such as driveways for private economic development?

If a small cell tower is placed in a right-of-way, what governs the obligation to later move the private cell tower if necessary to make way for other essential uses of the right-of-way or desirable private development, e.g., curb cuts?

Can all ground equipment be placed in the vicinity of the tower without causing obstructions or safety hazards?

Will installation of fiber optic cables and electricity be required and, if so, will that interfere with other utility installations, curb cuts, etc.?

Can the applicant demonstrate that it has complied, or intends to comply, with federal law for the placement of FCC-regulated antenna structures?

Can the same service be provided by adding antennas to existing towers in the same area or by modification of those towers, avoiding the need for new structures?

Expansion of wireless bandwidth, being essential to local and national economic development, should be done by responsible companies, using safe structures, in appropriate locations, without duplicating existing tower infrastructure, and under reasonable regulation to prevent avoidable problems.

Modern, small cell towers can be a useful tool for increasing wireless bandwidth that the public expects and that promote economic development, particularly in dense, urban environments and high traffic areas. It's very important that these small cell towers be appropriately regulated in an informed way, as municipalities have regulated cell towers on private land for at least two decades.

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